REMARKS

Claim 1 is amended to more particularly point out that Applicant's method includes applying a promoter oxide compound onto refractory inorganic oxide particles by forming a first slurry of the refractory inorganic oxide particles dispersed in a solution containing a precursor of the promoter oxide compound and calcining to form the promoter oxide compound and to deposit the promoter oxide compound onto the refractory inorganic oxide particles, as described at paragraph 0021. Claim 1 is further amended to recite the steps of impregnating the supported promoter particles with a noble metal catalyst; sizing the catalyst-bearing particles and applying the sized particles to the inlet wall of the substrate so that the particles penetrate the pores, as described at paragraphs 0022, 0026, 0027 and 0028. See also Example 1, beginning at paragraph 0035.

Claim 13 is amended to clarify that the catalyst is platinum or palladium.

Claim 14 is amended similar to claim 1.

Claim 15 and 16 are amended to refer to the refractory inorganic oxide particles, consistent with the antecedent in claim 14, upon which they are dependent.

Rejection under Section 112

In the prior Office Action mailed May 2, 2006, claims 1, 3-8, 8 and 13-16 were rejected under 35 U.S.C. § 112. In view of the amendments made to the claim in the Amendment dated June 30, 2006, it is believed that the grounds for the rejection have

been addressed and overcome. Accordingly, it is requested that the rejection be withdrawn.

Claim Rejection based upon Voss et al. and Canadian Patent No. 2,299,602

Claims 1, 3-4, 6-8, 13, 15 and 16 were rejected under 35 U.S.C. § 103 as unpatentable over United States Patent Application No. 2003/01243037 by Voss et al., in view of Canadian Patent No. 2,299,602.

As set forth in claim 1, Applicant's method is directed to making a diesel particulate filter and comprises the steps of applying a promoter oxide compound onto refractory particles, impregnating the particles with noble metal catalyst, sizing the particles to a size less than the average pore size of the substrate, and applying the particles to the substrate so that they penetrate into the pores. The references, even when combined, do not show these steps in making a diesel particulate filter.

Voss et al. describes a catalyst composition that is based upon ceria particles and particles of another metal oxide mixed as discrete particles. Attention is directed to paragraphs 0071-0073. In an alternate design, the ceria and other metal oxide may be applied in separate, discrete layers. It is significant that Voss et al. contemplates a catalytic material that is applied to coat the surface, and seems to suggest that the ceria is suitably distributed in the layer even though added as discrete particles. In contrast, in Applicant's method, the promoter oxide, e.g., cerium oxide, is applied onto the refractory

particles, which are then sized to penetrate the pores. Thus, the promoter oxide is distributed within each pore that is impregnated with a particle. In Voss et al., even if the particles were sized to penetrate the surface, some pores would receive refractory particles without ceria. Nothing in Voss et al. leads the practitioner to apply the promoter oxide to the refractory particles so as to obtain uniform distribution of promoter oxide within the pores penetrated by the slurry. Thus, Voss et al. does not teach or suggest Applicant's invention.

The rejection acknowledges that Voss et al. only shows a general method of preparation, and relies upon the Canadian patent to disclose the steps of Applicant's method. However, the Canadian patent describes a catalyst element for treating exhaust gas that flows through the longitudinal channels without passing through the wall. The practitioner would readily appreciate that the substrate in the Canadian patent does not have open porosity and is not suited for use as a diesel particulate filter. In the substrate in the Canadian patent, catalytic activity occurs from the interaction with the catalyst on the surface of the channel. The practitioner would appreciate that the catalyst needs to be applied as a layer on the surface so as to maximize contact with the gas, i.e., not be buried within pores beneath the surface. Thus, the Canadian patent does not suggest a formulation that is intended to penetrate porosity of a substrate for a diesel particulate filter.

The combination of the references thus fails to point the practitioner to Applicant's method. Voss et al. contemplates a catalytic composition applied as a layer rather than

penetrating into pores within the wall. Voss et al. does not suggest to improve distribution of cerium oxide by applying the compound onto the refractory particles, apparently because the distribution of ceria in the form of discrete particles is deemed adequate for the purposes of Voss et al. The material of the Canadian patent is also formulated to form a coating on a surface. Thus, there is nothing in the references to lead the practitioner to apply a promoter oxide onto refractory particles to provide an improved distribution of the promoter oxide within the pores that are penetrated by the particles, so as to arrive at Applicant's invention.

Claim 1 is directed to Applicant's method of making a diesel particulate filter. The claim calls for applying a promoter oxide onto refractory inorganic oxide particles by applying a precursor and calcining. After impregnating the particles with noble metal catalyst, the claim also calls for sizing and then applying the particles so as to cause the catalyst-bearing particles to penetrate within pores of the porous wall. Voss et al. applies a formulation of ceria as discrete particles to form a layer on the surface, as opposed to particles penetrating the surface. The Canadian patent also describes a formulation to form a layer on the surface, as opposed to particles that penetrate the surface. Thus, there is nothing in the references to lead the practitioner to the claimed method that improves distribution of promoter oxide in particles that penetrate the pores of a porous wall. Still further, the claim calls for a composition having an average particle diameter of about 2 to 10 micrometers and about 10% to 80% of the average pore size of the substrate, and for applying the sized particles so as to limit that penetration to less than 25% of the

thickness of the wall. Neither Voss et al. nor the Canadian patent describe sizing the particles relative to the pore size of the substrate and obtaining limited penetration of the pores by the particles. Without these steps, the references do not lead the practitioner to arrive at the method for forming a diesel particulate trap in claim 1.

Claims 3, 4, 6-8, and 13 dependent upon claim 1 and so not taught or suggested by the references at least for the reasons set forth with regard to that claim.

Claim 14 and dependent claims 15 and 16 recite steps similar to claim 1 and so not taught of suggested by the references for the reasons set forth above.

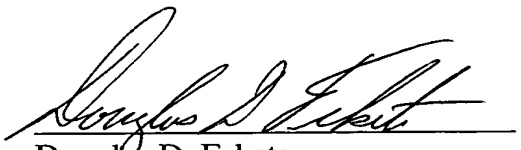
Accordingly, it is respectfully requested that the rejection of the claims based upon Voss et al. and the Canadian patent be reconsidered and withdrawn, and that the claims be allowed.

Conclusion

If it would further prosecution of the application, the Examiner is urged to contact the undersigned at the phone number provided.

The Commissioner is hereby authorized to charge any fees associated with this communication to Deposit Account No. 50-0831.

Respectfully submitted,



Douglas D. Fekete
Reg. No. 29,065
Delphi Technologies, Inc.
Legal Staff – M/C 480-410-202
P.O. Box 5052
Troy, Michigan 48007-5052

(248) 813-1210